SCHEME OF COURSE WORK Department of InformationTechnology

CourseDetails:

COURSETITLE	ENVIRONMENTAL STUDIES		
COURSECODE	15BC1104	L T P C	3 0 0 3
PROGRAM	B.TECH		
SPECIALIZATION	Commonto allBranches		
SEMESTER	III		
PRE REQUISITES			
COURSESTOWHICHIT IS A PRE REQUISITE	N/A		

CourseOutcomes(COs):

1	Identifythe variousresourcesavailableandexplaintheirconservationtechniques.
2	Classify,describe and explainthe conceptsof ecosystem,biodiversityand theirconservation.
3	Categorizeandexplaindifferenttypesof pollutionandtheircontrolmethods.
4	Identifythedifferenttypesofsocialissuescausedduetotoday'sdevelopmentandalsodescribethe relevantacts.
5	Assesstheeffects of populationanditsgrowth onenvironmentand humanhealth.

ProgramOutcomes(POs):
A graduateof mechanicalengineeringwillbe ableto

1	Abilityto planand executesoftwareprojectmodules,testingand deliverymechanisms.
2	Abilityto useindustryreadymoderntechnologiesthroughadvanced data structures,expertiseinwebtechnologies.
3	Abilitytothinkcriticallyon thesoftwarerelatedissues to provideviablesolutions.
4	Abilityto solvesoftwarerelatedproblemseffectivelyand efficiently.

5	Abilityto conductresearchon up-comingfields ofsoftwaredevelopmentandtoinnovateintonewDirections.
6	Abilityto manage a softwareteamand to maintainfinancialrecordsas per standards.
7	Abilityto effectivelycommunicatewithclients,peersandsocietyatlarge.
8	Abilitytotake up lifelonglearningto beintunewiththe new softwarerelatedtechnologies.
9	Abilitytofollow ethicalpracticesinthesoftwareindustryand acceptsocialresponsibility.
10	Abilitytolearnindependentlyfrommistakes and surgeforwardswithpositiveattitude.

CourseOutcome versusProgramOutcomes:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2					3	3	2							
CO2	3					3	3	2							
CO3	2					3	3	2							
CO4	3					3	3	2							
CO5	3					3	3	2							

S -Stronglycorrelated,M-Moderatelycorrelated,Blank -Nocorrelation

Assessment Methods	Assignment/Quiz/Seminar/CaseStudy/Mid-Test/End Exam

Teaching- Learning&Evaluation

Week	Topic/ Contents	Course Outcomes	Sample questions	Teaching learning strategy	Assessment method&schedule
1	Renewableandnonrenewableresources,Forestresources,Waterresources,Mineralresources.	CO-1	1.Whatisanenvironment?Enumerateanddiscusesthevarioussegmentsofenvironmentinbrief.	Lecture Demonstration	Assignment(Week1-8) Mid-Test1Quiz1(Week-9)

2	Foodchains,foodwebsan d ecological pyramids	CO-1	1.Whatistheimpactoffoodchai nsonhumans	Lecture Demonstratio n	Assignment(Week1-8) Mid-Test1Quiz1(Week-9)
3	Concept of anecosyst em	CO-2	1.Explain theconcept ofecosysteminbrief	Lecture Discussion Problem solving	Mid-Test1Quiz-1(Week9)
4	structureandfunctionoft hefollowingecosystem, Threatstobiodiversity	CO-2	1.Discuss about variousthreatsto biodiversity	Lecture	Assignment(Week1-8) Mid-Test1Quiz-1(Week9)
5	Biogeographicalclassificati on ofIndia,Threatstobiodiv ersity	CO-2	1.WriteshortnotesonGeneticbi odiversity,Speciesbiodiversit y,Ecosystembiodiversity	Lecture Problem solving	Assignment(Week1-8) Mid-Test1Quiz-1(Week9)
6	Endangered and endemicspeciesofIndia, Conservationofbiodiver sity	CO-2	1.Whatisthe mainobjectiveskfconversation ofbiodiversity?Stateandexplai nthetwobasicapproachesto thewildlifeconversation	Lecture Discussion Problem solving	Assignment(Week1-8) Mid-Test1Quiz-1(Week9)
7	Conservation of biodiversity	CO-2	1.Whatdoyouunderstandbyco nversation offorbiodiversity??Discussthe strategiesconversationofbiodi versity	Lecture Problem solving	Assignment(Week1-8) Mid-Test1Quiz-1(Week9)
8	In-situandExsituconservation biodiversity of	CO-2	1.Explainin-situandexsituconversationalongwiththe irmeritsandlimitations	Lecture Discussion Problem solving	Assignment(Week1-8) Mid-Test1Quiz-1(Week9)
9	MidTest1				

10	Definition, Cause,e ffectsandcontrolmeasuresof a) Airpollution b)Water pollution c)Soil pollutiond)Marinepollution e)Noisepollutionf)T hermalpollutiong) Nuclearhazards	CO-3	1.Explaina)Airpollutionb)Waterpollutionc)Soilpollutiond) Marinepollution e)Noisepollutionindetail	☐Lecture ☐Discussion ☐Problem solving	Assignment1 (Week1-8) Mid-Test1Quiz-1(Week9)

11	Causes,effectsandcontrolmeasuresofurbanandindustrialwastes.Roleofan individual in preventionofpollution	CO-3	1.Whatistheroleofindividualinpreventionofpollution	☐Lecture ☐Discussion	Assignment2 (Week10-17) Mid-Test2Quiz2(Week18)
12	FromUnsustainabletoSustainabledevelopment,ProtectionAct, WildlifeProtectionAct.	CO-4	1.Explain about wildlifeprotectionactindetail	☐Lecture ☐Discussion	Assignment2 (Week10-17) Mid-Test2Quiz2(Week18)
13	Population growth, variation among nations. Population explosionFamily	CO-4	1.Explain population explosionindetail.	☐Lecture ☐Discussion	Assignment2 (Week10-17) Mid-Test2Quiz-2(Week18
14	WelfareProgramme.Environment andh umanhealth.HumanRights	CO-5	1.ExplainaboutHIV/AIDScampaign.	☐Lecture ☐Seminar	Assignment2 (Week10-17) Mid-Test2Quiz-2(Week18
15	River /forest grassland/hill/mountain	CO-5	FieldVisit	☐Lecture ☐Seminar	Seminar(Week10-17) Mid-Test2Quiz-2(Week18

16	Urban/Rural/industrial/ AgriculturalStudyofcom monplants,insects,	CO-5	FieldVisit	Lecture Discussion	Seminar(Wee k10-17) Mid-Test2Quiz2(Week18)
17	Birds.- Studyofsimpleecosyste ms-pond,river,hillslopes	CO-5	FieldVisit	Lecture Discussion	Assignment2 (Week10-17) Mid-Test2Quiz-2(Week18
18	Mid-Test2				
19/20	ENDEXAM				